

The seal of the Arizona Department of Environmental Quality is a large, faint watermark in the background. It is circular with the text "ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY" around the perimeter. In the center is a shield with a sunburst, a mountain, and a river.

Air Quality Control
General Permit
For
Soil Vapor Extraction Units
(SVEUs)

Arizona Department Of Environmental Quality

Air Quality Division

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**GENERAL AIR QUALITY CONTROL PERMIT
FOR
SOIL VAPOR EXTRACTION UNITS**

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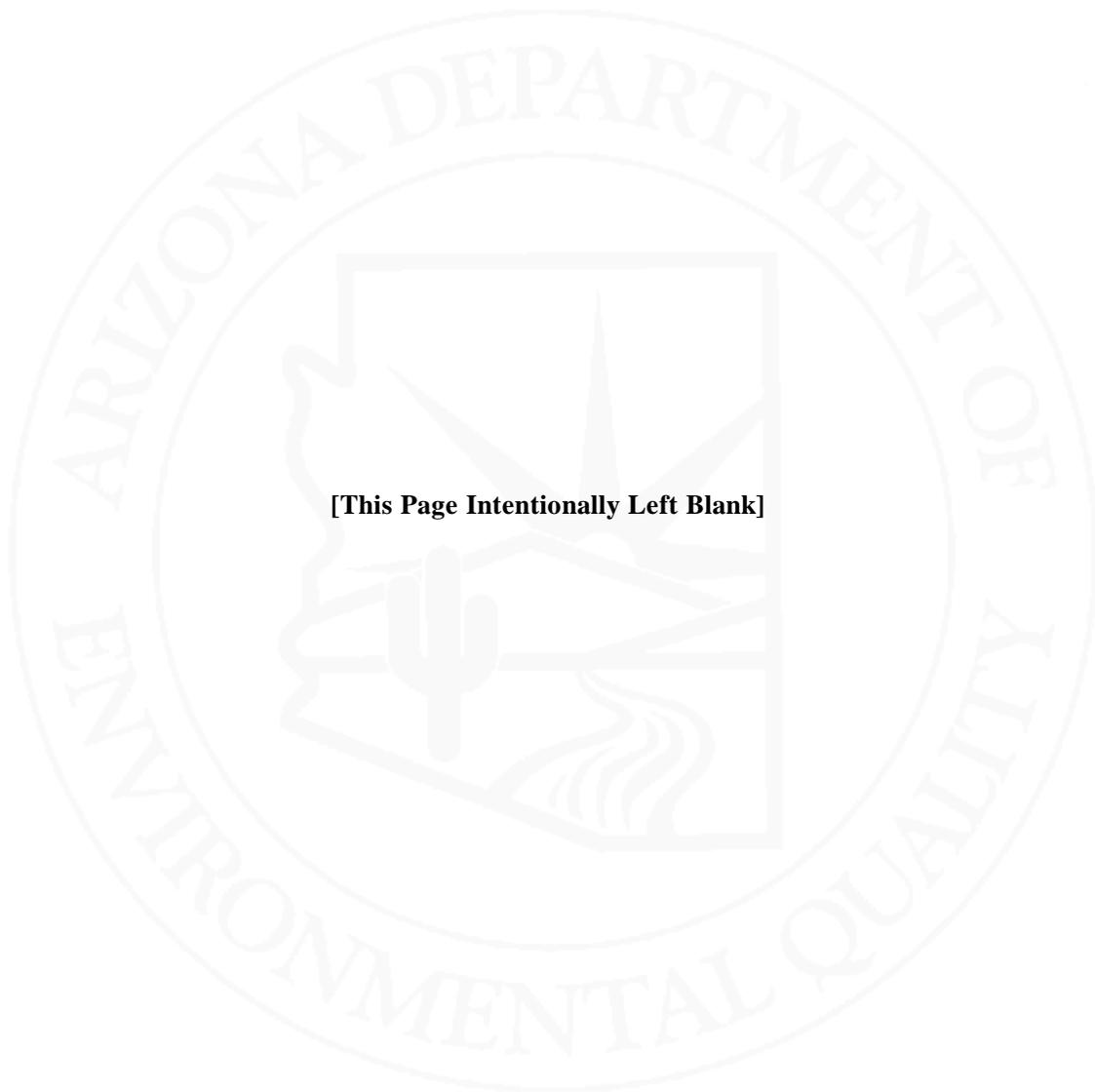
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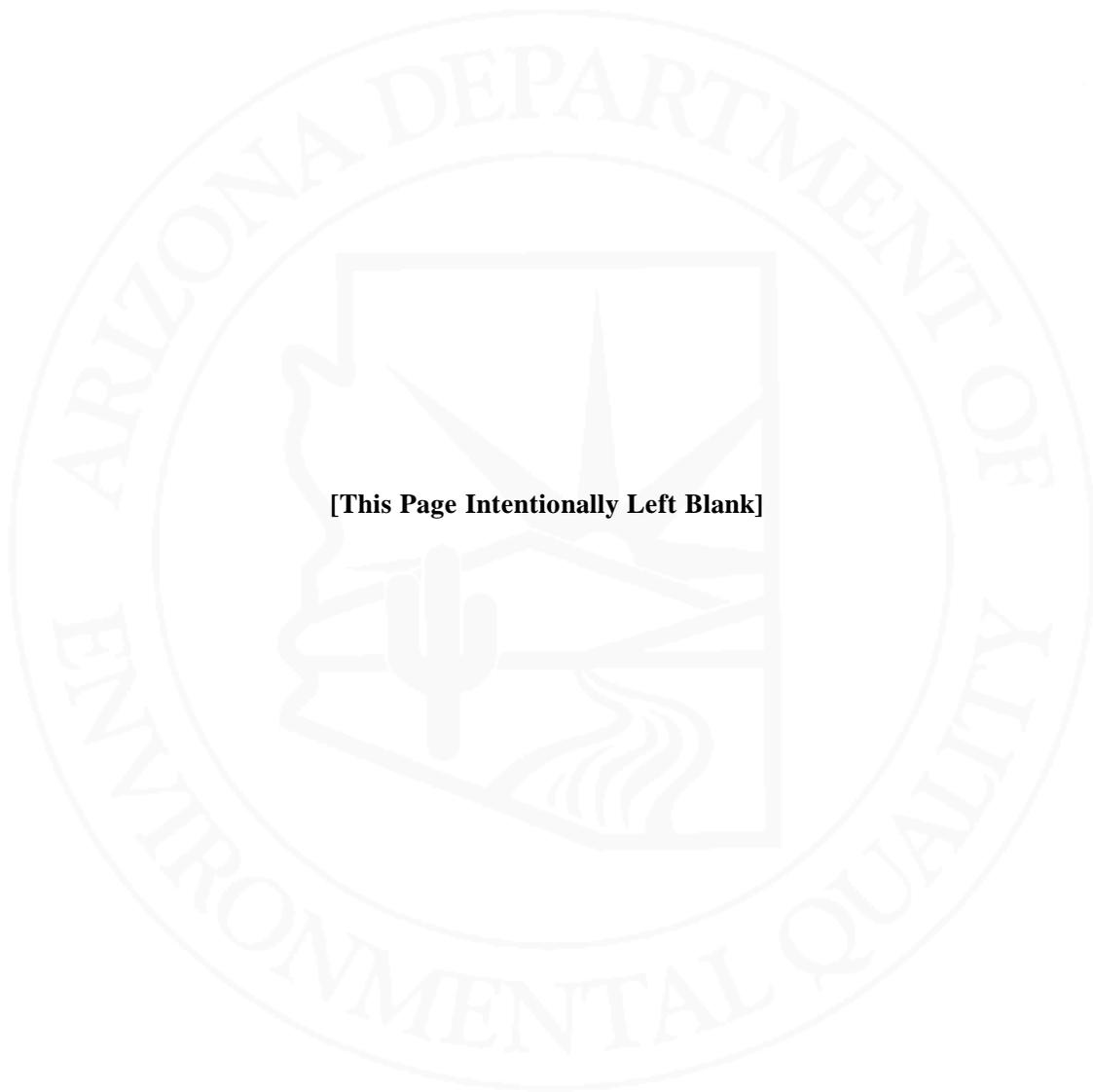
I. INTRODUCTION

[A.A.C. R18-2-302(B), -401.9(a) and -501 thru-511]

- A. This document is a General Permit for *Soil Vapor Extraction Units* (SVEUs), authorized under *Arizona Administrative Code* (A.A.C.) R18-2-501 thru -511 and *Arizona Revised Statutes* (A.R.S.) §49-426, which owners/operators of existing sources and new SVEUs may choose to utilize in lieu of an individual permit. Such parties shall do so by obtaining an individual *Authorization to Operate* (ATO), which will attest to their formal agreement to abide by all conditions contained herein.
- B. This General Permit is issued pursuant to the provisions of A.R.S. §49-404(C), and constitutes an installation permit for the purpose of the applicable *State Implementation Plan* (SIP).
- C. This General permit covers “stand-alone” stationary and portable units [those which are not located on contiguous or adjacent property with a supporting SVEU] that are subject to state and/or county regulations.
- D. This General permit applies to sources operating in all counties of Arizona. Sources planning to operate solely in Maricopa, Pima, or Pinal County only need to obtain an individual or general permit from the Maricopa, Pima, or Pinal County Air Quality Control District (AQCD).
- E. This General Permit covers only SVEUs treating motor fuel contaminated sites.
- F. This General Permit does not allow for the processing of Resource Conservation Recovery Act (RCRA) hazardous waste.
- G. This General Permit does **not** apply to Class I sources.

II. APPLICATION FOR AUTHORIZATION TO OPERATE

- A. Any source which is qualified to be covered by this General Permit (refer to Section I) may apply to the Department for authority to operate under this General Permit. Applicants shall submit the application form and necessary information included in Appendix 1 of A.A.C. Title 18, Chapter 2. Applicants may complete additional forms available from the Department. Such application must specifically state that coverage under this General Permit is requested.
- B. If the SVEU owner is a rental company, the rental company shall serve as Applicant and apply for coverage under this General Permit.
- C. In order to be granted coverage under this General Permit, applicants must submit and agree to operate in accordance with an acceptable compliance plan.



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**GENERAL AIR QUALITY CONTROL PERMIT
FOR
SOIL VAPOR EXTRACTION UNITS
(SVEUs)**

**ATTACHMENT “A”
GENERAL PROVISIONS**

I. GENERAL PERMIT EXPIRATION AND RENEWAL

[ARS § 49-426(F), A.A.C. R18-306(A)(1), -505]

- A. This General Permit is valid for a period of five years from the date of issuance of the General Permit. The Director of ADEQ (Director) shall review and may renew this General Permit every five years from its date of issuance. All Permittee’s Authorizations to Operate (ATO) shall coincide with the term of this General Permit, except that the Director may require a Permittee authorized to operate under this General Permit to apply for and obtain an individual permit at any time, if the source is not in compliance with the terms and conditions of this General Permit.
- B. At the time that the public notice is required, pursuant to issuance of the proposed General Permit renewal, the Director shall notify in writing all Permittees who have been granted, or who have applications pending for , ATO’ s under this General Permit. The written notice shall describe the source’ s duty to reapply and may include requests for information required under the proposed General Permit.

II. COMPLIANCE WITH PERMIT CONDITIONS

[A.A.C. R18-2-306(A)(1)]

- A. The Permittee shall comply with all conditions of this General Permit including all applicable requirements of Arizona air quality statutes and the air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action, for ATO termination or revocation, or for denial of a renewal application.
- B. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.

III. GENERAL PERMIT REOPENINGS, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

[A.A.C. R18-2-321 and -510]

- A. The Director may reopen and reissue, or terminate this General Permit at any time if:
 - 1. The Director has determined that the emissions from the sources in the facility class cause or contribute to ambient air quality standard violations which are not adequately addressed by the requirements in this General Permit; or
 - 2. The Director has determined that the terms and conditions of this General Permit no

longer meet the requirements of ARS §49-426 and 427.

- B. The Director shall provide written notice to all sources operating under this General Permit prior to reissuance or termination of this General Permit. Such notice shall include an explanation of the basis for the proposed action. Within 180 days of receipt of the notice of reissuance, expiration, termination or cancellation of this General Permit, sources notified shall submit an application to the Director for an individual permit.
- C. The Director may require a source authorized to operate under this General Permit to apply for and obtain an individual source permit at any time if:
 - 1. The source is not in compliance with the terms and conditions of this General Permit;
 - 2. The Director has determined that the emissions from the source or facility class are significant contributors to ambient air quality standard violations which are not adequately addressed by the requirements in this General Permit;
 - 3. The Director has information which indicates that the effects on human health and the environment from the sources covered under this General Permit are unacceptable;
 - 4. The Director has reasonable cause to believe that the ATO was obtained by fraud or misrepresentation; or
 - 5. The person applying for an ATO failed to disclose a material fact required by the permit application or the regulations applicable to the ATO of which the applicant had or should have had knowledge at the time the application was submitted.
- D. If the Director revokes a source's authority to operate under this General Permit, the Director shall notify the Permittee by certified mail, return receipt requested. The notice shall include a statement detailing the grounds for the revocation of authority and a statement that the Permittee is entitled to a hearing. A source previously authorized to operate under this General Permit may operate under the terms of this General Permit until the earlier of the date it submits a complete application for an individual permit, at which time it may operate under that application, or 180 days after receipt of the notice of revocation of authority to operate under this General Permit.

IV. POSTING OF GENERAL PERMIT

- A. Any person who has been granted coverage under this General Permit shall post such General Permit, or a certificate of General Permit coverage on location where the equipment is installed in such a manner as to be clearly visible and accessible.
- B. All equipment covered by the General Permit shall be clearly marked with a serial number or other equipment number as to be clearly visible and accessible.
- C. A copy of the complete General Permit and associated ATOs shall be kept on the site.

V. FEE PAYMENT

[A.A.C. R18-2-326, 306(A)(9), 511]

Permittee shall pay fees to the Director pursuant to A.R.S. §49-426(E) and A.A.C. R18-2-326.

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

[A.A.C. R18-2-327]

- A. Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31 or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.
- B. The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.

VII. COMPLIANCE CERTIFICATION

[A.A.C. R18-2-309]

- A. Permittee shall submit a compliance certification once each year, which describes the compliance status of the source with respect to each General Permit condition and the methods used for determining the compliance status. The Permittee shall list on the compliance certification all items of equipment issued ATOs, on site at the time of the annual certification. This certification shall be submitted on September 30 of each year. In addition, this certification shall include a description of any permit deviations.
- B. The Permittee is required to correct any item of non-compliance as soon as possible after discovery. For any episode on non-compliance which has not been corrected at the time of annual certification the Permittee shall submit a compliance schedule. The compliance schedule must describe the necessary remedial measures, include milestones leading to compliance, and provide dates for achieving milestones.

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

[A.A.C. R18-2-309.3]

Any document required to be submitted by this General Permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this part shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

IX. INSPECTION AND ENTRY

[A.A.C. R18-2-309.4]

Upon presentation of credentials and other documents as may be required by law, Permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), to perform the following:

- A. enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this General Permit;
- B. have access to and copy, at reasonable times, any records that must be kept under conditions of this General Permit;
- C. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this General Permit;

- D. sample or monitor at reasonable times, for the purpose of assuring General Permit compliance or as otherwise authorized by the Act, any substances or parameters at any location; and
- E. record any inspection by use of written, electronic, magnetic and photographic media.

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD [A.A.C. R18-2-304(C)]

If the sources which have been issued ATOs become subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the permittee shall, within twelve months of the date on which the standard is promulgated, reapply for coverage under the General Permit demonstrating how the sources will comply with the standard.

XI. PERMIT DEVIATION REPORTING

A. Excess Emissions Reporting [A.A.C. R18-2-306(A)(5)(b), -306(E)(3)(d) and -310]

- 1. Emissions in excess of an applicable emission limitation contained in this General Permit shall constitute a violation. For all situations that constitute an emergency as defined in R18-2-306(E), the affirmative defense and reporting requirements contained in that provision shall apply. In all other circumstances, it shall be affirmative defense if the Permittee of the source has complied with the reporting requirements of paragraph 3 of this section in a timely manner, and has demonstrated all of the following:
 - a. Excess pollution resulted from a sudden and unavoidable breakdown of the process or the control equipment; resulted from unavoidable conditions during startup or shutdown; resulted from unavoidable conditions during an upset of operations; or that greater or more extended excess emissions would result unless scheduled maintenance is performed;
 - b. Air pollution control equipment, process equipment, or processes were at all times maintained and operated, in a manner consistent with good practice for minimizing emissions;
 - c. Repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded and off-shift labor and overtime were utilized where practical to insure that such repairs were made as expeditiously as possible. If off shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that such measures were impractical;
 - d. Quantity and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
 - e. Feasible steps were taken to minimize the impact of the excess emissions on potential violations of ambient air quality standards;

- f. Excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and
 - g. No measured violations of the ambient air quality standards established in A.A.C. R18-2-201 through R18-2-206 which could be attributed to the emitting source.
2. It shall be the burden of the Permittee of the source to demonstrate, through submission of the data and information required by this section, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of excess emissions.
3. Excess emissions shall be reported as follows:
- a. The Permittee of any source issued an ATO shall report to the Director any emissions in excess of the limits established by this General Permit. Such report shall be in two parts as specified below:
 - (1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from paragraph b of this subsection.
 - (2) Detailed written notification within 72 hours of the notification pursuant to subparagraph (1) of this paragraph.
 - (3) The following are the telephone and fax numbers for ADEQ:

Office: (602) 207-2301
Fax: (602) 207-2366
 - b. The report shall contain the following information:
 - (1) Identity of each stack or other emission point where the excess emissions occurred.
 - (2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emission.
 - (3) Time and duration or expected duration of the excess emissions.
 - (4) Identity of the equipment from which the excess emissions emanated.
 - (5) Nature and cause of such emissions.
 - (6) Steps taken to remedy the malfunction and to prevent the recurrence

of such malfunctions, if the excess emissions were the result of a malfunction.

- (7) Steps taken to limit the excess emissions. If the source's permit contains procedures governing source operation during periods of start-up or malfunction and the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

4. In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification pursuant to subsection A.3.a.(2) of this section.

5. Emergency Provision

- a. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- b. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emissions limitations if the conditions of paragraph "d" of this section are met.
- c. The Permittee shall submit notice of the emergency to the Director by certified mail, facsimile or hand delivery within 2 working days of the time when emission limitations were exceeded due to an emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions.
- d. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that:
 - (1) An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions

standards or other requirements in this General Permit; and

(4) The notice was submitted per paragraph “c” above.

e. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

f. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

B. Other Permit Deviations [A.A.C. R18-2-306(A)(5) and 6]

Permittee shall report deviations from the General Permit requirements, the probable cause of such deviations, and any corrective actions or preventative measures taken. The required report shall be submitted to the Director every year with the annual compliance certification on September 30 (see Attachment A, Section VII located on page 11).

XII. RECORD KEEPING REQUIREMENTS

A. Monitoring Records [A.A.C. R18-2-306(A)(4)(a)]

Permittee shall keep records of all required monitoring information including, but not limited to, the following;

1. The date, place as defined in the permit, and time of sampling or measurements;
2. The date (s) analyses were performed;
3. The name of the company or entity that performed the analyses;
4. A description of the analytical techniques or methods used;
5. The results of such analyses; and
6. The operating conditions as existing at the time of sampling or measurement.

B. Records Retention [A.A.C. R18-2-306(A)(4)(b)]

Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

XIII. REPORTING REQUIREMENTS [A.A.C. R18-2-306(A)(5)]

The Permittee shall submit reports of any required record keeping twice each year, beginning no later than six months subsequent to ATO issuance. The first semiannual summary report shall be submitted

no later than April 15th, and shall report the compliance status of the source during the period between September 16th of the previous year, and March 15th of the current year. The second semiannual summary report shall be submitted no later than October 15th, and shall report the compliance status of the source during the period between March 16th and September 15th of the current year.

XIV. DUTY TO PROVIDE INFORMATION

[A.A.C. R18-2-304(G), 306(A)(8)(e)]

- A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revoking the General Permit coverage, or to determine compliance with the General Permit. Upon request, the Permittee shall also furnish to the Director copies of records that the Permittee is required to keep under the General Permit.
- B. Any Permittee who fails to submit any relevant facts or who has submitted incorrect information in a General Permit coverage application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

XV. PERMIT COVERAGE AMENDMENTS OR REVISIONS

[A.A.C. R18-2-318, -319 and -320]

Permittee shall apply for a revised permit coverage or for a individual permit for changes to the facility which do not qualify for a facility change without revision under Attachment A, Section XV.C, page 16, as follows:

- A. Administrative Permit Amendment (A.A.C. R18-2-318);
- B. Minor Permit Revision (A.A.C. R18-2-319); or
- C. Significant Permit Revision (A.A.C. R18-2-320).

The applicability and requirements for such action are defined in the above-referenced regulations.

XVI. FACILITY CHANGE ALLOWED WITHOUT OBTAINING AN ATO OR INDIVIDUAL PERMIT

[A.A.C. R18-2-317]

- A. A facility with a coverage under this General Permit may make changes without reapplication for coverage if all of the following apply:
 - 1. the changes are not modifications under any provisions of Title I of the Act or under A.R.S. §49-401.01(17);
 - 2. the changes do not exceed the emissions allowable under this General Permit whether expressed therein as a rate of emissions or in terms of total emissions;
 - 3. the changes do not violate any applicable requirements or trigger any additional applicable requirements;

4. the changes satisfy all requirements for a minor permit revision under R18-2-319(A); and
 5. the changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements.
- B. The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of subsections A, C, and D of this Section. For substitution of equipment, there shall be no fee.
- C. For each such change under subsections A and B of this Section, except as provided in C.1 below, a written notice by certified mail or hand delivery shall be received by the Director a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided as far in advance of the changes as possible or, if advance notification is not practicable, as soon after the change as possible.
1. Examples of changes that do not require notification:
 - a. Changes that are not physical changes or changes in the method of operation of a source that have the potential to affect emissions;
 - b. Routine maintenance activities;
 - c. Changes to activities that are significant under A.A.C. R18-2-101.54.
 2. Each notification shall include:
 - a. When the proposed change will occur.
 - b. A description of each such change.
 - c. Any change in emissions of regulated air pollutants.
 - d. The provisions in the implementation plan that provide for the emissions trade with which the source will comply and any other information as may be required by the provisions in the implementation plan authorizing the trade.
 - e. If the emissions trading provisions of the implementation plan are invoked, then the permit requirements with which the source will comply.

XVII. TESTING REQUIREMENTS

[A.A.C. R18-2-312]

A. Test plan

At least 30 calendar days prior to performing a test, the owner or operator shall submit a test

plan to the Director. Such test plan must be in accordance with the Arizona Testing Manual and must be approved, in writing by the Department before the test is performed. Submittal of the test plan 30 days prior to the proposed test date shall satisfy the two week notification requirement of A.A.C. R18-2-312(D). Copies of the Arizona Testing Manual can be obtained by contacting ADEQ.

B. Stack sampling facilities

The Permittee shall provide or cause to be provided, performance testing facilities as follows:

1. sampling ports adequate for test methods applicable to the facility;
2. safe sampling platform(s);
3. safe access to sampling platform(s); and
4. utilities for sampling and testing equipment.

C. Interpretation of final results

Each performance test shall consist of three separate runs using the required test method. Each run shall be conducted in accordance with the applicable standard and test method. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. If a sample is accidentally lost or conditions occur which are not under the Permittee's control and which may invalidate the run, compliance may, upon the Director's approval, be determined using the arithmetic mean of the other two runs.

D. Report of Final Results

A written report of the results of all tests shall be submitted to the Director within 30 calendar days after sampling is completed. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312(B).

E. Cessation of Testing After the First Run has Started

If the Director, or the Director's designee is present, performance tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, the performance test may only be stopped for good cause. Good cause includes forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions or other conditions beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure test. Supporting documentation which demonstrates good cause must be submitted.

XVIII. PROPERTY RIGHTS

[A.A.C. R18-2-306(A)(8)(d)]

This General Permit does not convey any property rights of any sort, or any exclusive privilege.

XIX. SEVERABILITY CLAUSE

[A.A.C. R18-2-306(A)(7)]

Upon any judicial challenge, the Permittee shall comply with all the emission limits, specific and

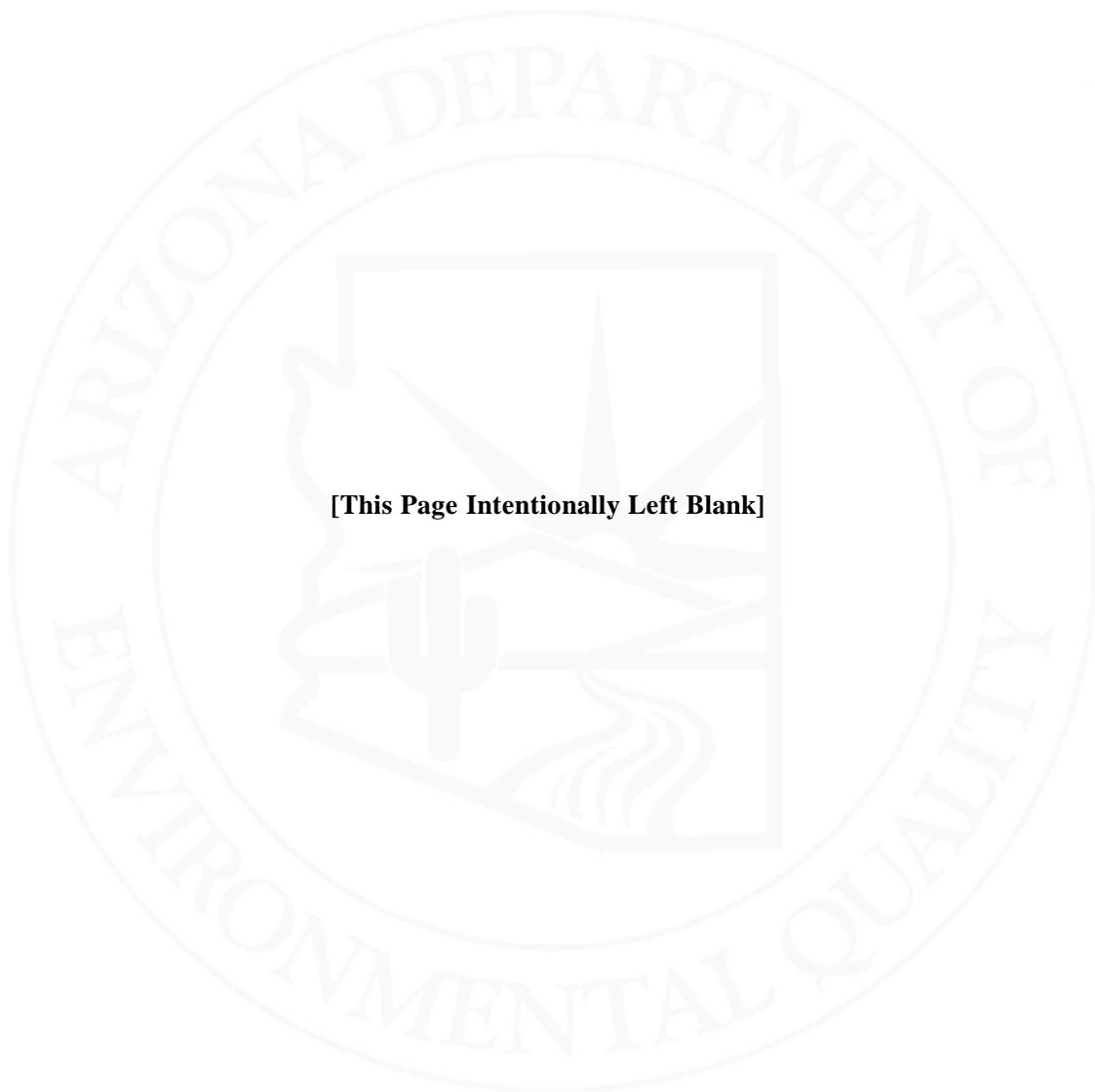
general conditions, monitoring, record keeping, and reporting requirements of this General Permit, except those challenged. The provisions of this General Permit are severable, and, if any provision is held invalid, the remainder of this General Permit shall not be affected thereby.

XX. PERMIT SHIELD

[A.A.C. R18-2-325 and -508]

As of the date authority to operate for a source is granted, compliance with the conditions of this General Permit shall be deemed compliance with any applicable requirement in effect on the date of General Permit issuance, provided that such applicable requirements are included and expressly identified in this permit.





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**GENERAL AIR QUALITY CONTROL PERMIT
FOR SOIL VAPOR EXTRACTION UNITS
(SVEUs)**

**ATTACHMENT "B"
SPECIFIC CONDITIONS**

I. RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN

[A.R.S. §49-404(C) and -426]

This permit is issued pursuant to the provisions of Arizona Revised Statutes (A.R.S.) and constitutes an Installation Permit for the purpose of the applicable State Implementation Plan (SIP).

II. EMISSION LIMITS/ STANDARDS

A. Stack Emission Limitations for Thermal/Catalytic Oxidizer

1. Permittee shall not allow the opacity of any plume or effluent to be greater than 40 percent, and shall determine opacity by EPA reference Method 9 in 40 CFR 60, Appendix A. [A.A.C. R18-2-702(B)]

2. Permittee shall not discharge particulate matter into the atmosphere in any one hour from any unclassified process source in total quantities in excess of the amount calculated by the following equation: [A.A.C. R18-2-730(A)(1)(a)]

$$E = 4.10P^{0.67}$$

where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

3. Permittee shall not emit gaseous or odorous materials from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution. [A.A.C. R18-2-730(D)]
4. Where a stack, vent or other outlet is such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the owner or operator thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property. [A.A.C R18-2-730(G)]
5. Permittee shall limit the concentration of benzene to not more than 200 parts per million by volume (ppm_v) in the gases exiting the SVEU at all times vapor extraction is employed. [A.A.C. R18-2-306(A)(2)]

6. Permittee is not authorized to use the thermal or the catalytic oxidizer when the volatile organic compounds (VOCs) inlet concentrations are greater than manufacturer recommended limits cited in order to guarantee minimum destruction efficiencies of 90%. This limit is not applicable when the inlet VOCs concentration is less than or equal to 500 ppm_v. [A.A.C. R18-2-306(A)(2)]

7. Permittee is not allowed to directly discharge into the atmosphere at any time. [A.A.C. R18-2-306(A)(2)]

B. Fuel Limitation [A.A.C. R18-2-306(A)(2)]

Permittee shall use **only** natural gas, propane, or electric energy to fuel the oxidizer burner.

C. Operational Limitations

Permittee shall operate one of the following air pollution controls at all times that vapor extraction is employed. Controls shall be fully operational upon startup of the SVEU.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

1. Thermal Oxidizer

a. The thermal oxidizer shall be used to remove VOCs from the gases exiting the SVEU only when the inlet concentration is less than the manufacturer recommended maximum VOCs concentration for the thermal oxidizer which assures a destruction efficiency of at least 90%. This limit is not applicable when the inlet VOCs concentration is less than or equal to 500 ppm_v.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

b. The thermal oxidizer shall be installed, maintained, and operated in accordance with the manufacturer's specifications.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

c. The flow rate of the gases exiting the SVEU unit shall be equal to or greater than 2.30 meters per second (m/s) at all times vapor extraction is employed.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

d. A temperature recording device with an accuracy of ±5 degrees Fahrenheit (°F) shall be installed and maintained to measure and record the process temperature of the thermal oxidizer.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

e. The process temperature of the thermal oxidizer shall be equal to or greater than 1400°F.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

f. A flow meter shall be installed and maintained at the exhaust of the thermal oxidizer to measure and display the total flow rate.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

g. No dilution air shall be added to the gas stream downstream of the flow meter required by paragraph (f) of this subsection.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

2. Catalytic Oxidizer

- a. The catalytic oxidizer shall be used to remove VOCs from the gases exiting the SEVU only when the inlet concentration is less than the manufacturer recommended maximum VOCs concentration for the catalytic oxidizer which assures a destruction efficiency of at least 90%. This limit is not applicable when the inlet VOCs concentration is less than or equal to 500 ppm_v.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

- b. The catalytic oxidizer shall be installed, maintained, and operated in accordance with the manufacturer's specifications.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

- c. The flow rate of the gases exiting the SEVU shall be equal to or greater than 2.30 m/s.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

- d. A temperature recording device with an accuracy of $\pm 5^{\circ}\text{F}$ shall be installed and maintained to measure and record the temperature of the catalytic oxidizer.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

- e. The process temperature of the catalytic oxidizer shall be equal to or greater than 600°F .

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

- f. A flow meter shall be installed and maintained at the exhaust of the catalytic oxidizer to measure and display the total flow rate.

[A.A.C. R18-2-306(A)(3), Material Permit Condition]

- g. No dilution air shall be added to the gas stream downstream of the flow meter required by paragraph (f) of this subsection.

[A.A.C. R18-2-306(A)(3), Material Permit Condition]

3. If there is any structure within the 5L distance of the SVEU, where L represents the longest dimension (length, width or height) of the structure then the Permittee shall maintain a minimum stack height of 1' above the tallest structure. Otherwise, the stack height for this SVEU shall not be less than 15 feet from ground level.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

D. Other Applicable Conditions

1. Permittee shall use this SVE system to treat only motor fuel contaminated sites.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

2. No Resources Conservation Recovery Act (RCRA) hazardous waste is to be processed without first obtaining a RCRA permit and a revision to this permit.

[A.A.C. R18-2-306(A)(2), Material Permit Condition]

3. Upon project completion, all vapor extraction wells shall be secured with locking caps to prevent access.

[A.A.C. R18-2-306(A)(3)]

III. MONITORING AND RECORDKEEPING REQUIREMENTS

A. MONITORING/SAMPLING

[A.A.C. R18-2-306(A)(4) and -306.01]

VOCs and Benzene Inlet and Outlet Concentrations

1. At each location at which the SVEU is operated, the Permittee shall take representative grab samples of the gas entering and exiting the SVEU. The samples shall be taken as listed below:
 - a. Upon startup, representative grab samples shall be taken biweekly for the first six weeks, then monthly for the following six months, and quarterly thereafter.
 - b. Upon switching from thermal oxidation mode to catalytic oxidation mode, the Permittee shall take biweekly samples for the first six weeks, then monthly for the following six months, and quarterly thereafter.
2. Permittee shall determine the concentrations of VOCs and benzene in the inlet and outlet gas samples by using EPA Reference Method 8015 and 8021. EPA Reference Method 8015 shall be used for gasoline range organics and EPA Reference Method 8021 for benzene.

B. RECORDKEEPING

[A.A.C. R18-2-306(A)(4)]

1. The following information shall be recorded in the tabular format as represented in Attachment E:
 - a. Date of sampling;
 - b. Type of Air Pollution Control in use (Thermal or Catalytic Oxidizer);
 - c. The name of company or entity that performed the sampling;
 - d. Site elevation (ft AMSL);
 - e. The concentration of VOCs in inlet gas sample (ppm_v);
 - f. The concentration of VOCs in outlet gas sample (ppm_v);
 - g. The VOCs destruction efficiency for SVEUs;
 - h. The concentration of benzene in the outlet gas, C₆H₆ (ppm_v);
 - i. The flow rate at process blower inlet, Q_{process} (scfm); and
 - j. The exhaust gas temperature, T_{exit} (°F).
2. All required records shall be maintained either in an unchangeable electronic format or handwritten logbook of indelible ink for a minimum period of five (5) years after the date of such record and shall be made readily available to the Department upon request for inspection.
3. The permittee shall display the name, address and phone number of a contact person at the site of the SEVU in a manner as to be clearly visible and accessible.

IV. REPORTING REQUIREMENTS

- A. A written report of the result of the testing required in Section V of this attachment shall be submitted to the Director prior to commencement of construction and operation.

[A.A.C. R18-2-306(A)(5)]

- B. A written report of the results of all sampling tests required in the Section III.A shall be submitted to the Director in accordance with Section XIII of Attachment "A". The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.B and shall use tabular format of Attachment E.

[A.A.C. R18-2-306(A)(5)]

- C. Excess Emissions

[A.A.C. R18-2-310]

Any exceedance of any limitation contained in conditions A.1, A.2 and A.5 of section II of this Attachment shall constitute excess emissions and shall be reported in accordance with Section XI.A of Attachment A.

- D. Move Notice

[A.A.C. R18-2-324(D)]

A portable source may be transferred from one location to another provided that the owner or operator of such equipment notifies the Director of the transfer by certified mail at least ten (10) working days before the transfer. The location change notification shall be submitted via the standard form provided by the Department and shall include:

1. A description of **all** permitted equipment (under the same owner or operator) which is going to be present at the site including the permit number, the manufacturer, the model number, including the serial number and equipment ID number(s) for such equipment;
2. The address and description of the present location of the equipment;
3. The address and description of the location to which the equipment is to be transferred, including the availability of all utilities, such as natural gas, propane, or electricity, necessary for the proper operation of all control equipment;
4. The date on which equipment is to be moved; and
5. The date on which operation of the equipment will begin at the new location.

V. TESTING REQUIREMENTS

[A.A.C. R18-2-306(A)(3)]

Prior to start-up or moving to a new site, the Permittee shall conduct a complete vapor analysis including full range GRO and halogenated hydrocarbons. Permittee shall meet the requirements described in Section XVII of Attachment A. The Department may deem it necessary to conduct a subsequent performance test based on site/operation inspection and excess emissions. The performance test shall be conducted and data reduced (as required by A.A.C. R18-2-312.B) in accordance with the following test methods:

EPA Reference Method 8015 for full range of GRO shall be used to determine the concentration of

VOCs, and

EPA Reference Method 8260 shall be used to determine the concentration of halogenated compounds.

VI. CONDITIONS SPECIFIC TO PORTABLE SOURCES

[A.A.C. R18-2-324]

- A. The equipment serial number or equipment identification (I.D.) number, utilizing not less than four-inch high characters, shall be stenciled on each permitted piece of equipment, and referenced in all correspondence with the Department.
- B. In the case that equipment covered under this permit is rented or leased, this permit shall be provided by the owner to the renter or lessee and the renter or lessee shall be bound by this permit's provisions. In the event a copy of the permit is not provided to the renter or lessee, both the owner and the renter or lessee shall be responsible for the operation of this equipment in compliance with the permit conditions and any violations thereof.
- C. A portable source that will operate for the duration of its permit solely in one county that has established a local air pollution control program pursuant to A.R.S. §49-479 shall obtain a permit from that county. A portable source with a county permit, shall not operate in any other county until it receives a permit from the Arizona Department of Environmental Quality.
- D. For any source operating within **Maricopa, Pima** or **Pinal** county, Permittee must comply with additional air quality rules and regulations of that county.

**GENERAL AIR QUALITY CONTROL PERMIT
FOR
SVEUs**

ATTACHMENT "C"

**ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING
IN
MARICOPA, PIMA, OR PINAL COUNTIES**

I. REQUIREMENTS FOR SOURCES OPERATING IN MARICOPA COUNTY

As per A.R.S. §49-480(A), the Board of Supervisors may adopt a program which shall include provisions for administration, inspection and enforcement of General Permits issued pursuant to A.R.S. §49-426, subsection H. The Permittee shall abide by all requirements of this General Permit and the following requirements while operating in Maricopa County:

The numerical section references in this portion of the permit are based on Maricopa County Air Pollution Control Rules and Regulations (Rules) in effect on November 18, 1999. In the event that these rules are revised to change the numerical references during the term of this Permit, the revised numbering system will apply to this permit.

Standards and Applicability

A. General

1. The requirements of this chapter shall apply to all sources of air contaminants operating in Maricopa County, including those sources under the jurisdiction of the Arizona Department of Environmental Quality.
2. If more than one emission limit or emission standard is applicable to the same source, the more stringent standard or emission limit shall apply.
3. The owner or operator of any stationary or portable source of air pollution which burns any material, except natural gas, shall keep records of the material used as fuel.

B. Odor Limiting Standard [Maricopa County Rule 320, Section 300]

No person shall emit gaseous or odorous air contaminants from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.

C. Opacity Standard [Maricopa County Rule 300, Section 301]

No person shall discharge into ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20 percent opacity.

D. Organic Solvents Other Organic Materials [Maricopa County Rule 330, Section 306]

No person shall store, discard, or dispose of VOC or VOC-containing material in a way intended to cause or allow the evaporation of VOC to the atmosphere.

II. REQUIREMENTS FOR SOURCES OPERATING IN PIMA COUNTY

As per A.R.S. §49-480(A), the Board of Supervisors may adopt a program which shall include provisions for administration, inspection and enforcement of General Permits issued pursuant to A.R.S. §426(H). The Permittee shall abide by all permit conditions of this General Permit and the following rules while operating in Pima County:

The numerical section references in this portion of the permit are based on Pima County Code (P.C.C.). In the event that the rules are revised to change the numerical references during the term of this Permit, the revised numbering system will apply.

Standards and Applicability [P.C.C. §17.16.010, 17.16.030 and 17.16040]

A. General [P.C.C. §17.16.010]

1. The requirements of this chapter shall apply to all sources of air contaminants operating in Pima county, including those sources under the jurisdiction of the Arizona Department of Environmental Quality.
2. If more than one emission limit or emission standard is applicable to the same source, the more stringent standard or emission limit shall apply.
3. The owner or operator of any stationary or portable source of air pollution which burns any material, except natural gas, shall keep records of the material used as fuel. The owner or operator of any stationary or portable source of air pollution which incinerates any material shall complete records of all materials incinerated.
4. Any facility described in subparagraph (2) above utilizing any fuel source or incinerating any material which the operator has any cause to believe may be hazardous waste shall test such material to determine if the material is hazardous waste prior to burning or incinerating the material. If the material is hazardous waste, the facility shall comply with section 17.16.150.

[Ord. 1995-87 §38.1995; Ord. 1994-83 §47, 1994; Ord.1993-128 §4(part), 1993]

B. Odor limiting Standard [P.C.C. § 17.16.030 and §17.16.430(D)]

No person shall emit gaseous or odorous materials from equipment, operations or premises under their control in such quantities or concentrations as to cause air pollution.

C. Opacity Standard [SIP Rule 321 and P.C.C. §17.16.040]

No person shall cause or permit the effluent from the SVEUs to exhibit an average optical density equal to or greater than 40%. A violation of the opacity standard shall be determined

by measuring and recording a set of consecutive, instantaneous opacities, and calculating the arithmetic average of the measurements within the set. The measurements shall be at approximately fifteen-second intervals for a period of at least six minutes, and the number of required measurements shall be 25.

D. Organic Solvents Other Organic Materials [P.C.C.§ 17.16.400(A)]

No person shall transport or store VOCs without taking necessary and feasible measures to control evaporation, leakage or other discharge into the atmosphere.

III. REQUIREMENTS FOR SOURCES OPERATING IN PINAL COUNTY

Pursuant to A.R.S.§49-480(A), the Pinal County Board of Supervisors has adopted a program which for administration, inspection and enforcement of general permits issued pursuant to A.R.S.§49-426, subsection H. In addition, the emission limitations adopted by Pinal County Board of Supervisors constitute "applicable requirements" within the meaning of A.R.S. §49-426(C), and all sources operating in Pinal County fall subject to those requirements, which include the following:

Currently Federally Enforceable Provisions

1. Those specific provisions of the Pinal-Gila Counties Air Quality Control District (PGCAQCD) Regulations, as adopted by the Pinal County Board of Supervisors on March 31, 1975, and approved by the Administrator as elements of the Arizona State Implementation Plan (SIP) at 43 FR 50531, 50532 (11/15/78), and specifically the following rules:

- 7-7-1.1 Policy & Legal Authority
- 7-1-1.2 Definitions
- 7-1-1.3.A Air Pollution Prohibited
- 7-1-1.3.B Air Pollution Prohibited
- 7-1-2.6 Recordkeeping and Reporting
- 7-1-5.1.C Classification & Reporting; Production of Records
- 7-1-5.1.E Violation; Penalty
- 7-2-1.1 [Ambient Standard] Non-Specific Particulate
- 7-2-1.2 [Ambient Standard] Sulfur Dioxide
- 7-2-1.4 [Ambient Standard] Photochemical Oxidants
- 7-2-1.5 [Ambient Standard] Carbon Monoxide
- 7-2-1.6 [Ambient Standard] Nitrogen Dioxide
- 7-2-1.7 Evaluation
- 7-3-1.1 Visible Emissions - General
- 7-3-1.2 Particulate Emissions - Fugitive Dust
- 7-3-1.7 Particulate Emissions - Fuel Burning Equipment
- 7-3-3.1 Storage of VOC Compounds
- 7-3-3.2 Loading of VOC Compounds
- 7-3-3.4 Organic Solvents; Other Volatile Organic Compounds

7-3-4.1 CO Emissions - Industrial
7-3-6.1 Policy and Legal Authority

2. Those specific provisions of Pinal-Gila Counties Air Quality Control District Regulations, as last amended by the Pinal County Board of Supervisors on June 16, 1980, and approved by the Administrator as elements of the Arizona SIP at 44 FR 73033 (12/17/79).
3. Those specific provisions of the Pinal-Gila Counties Air Quality Control District Regulations, as last amended by the Pinal County Board of Supervisors on June 16, 1980, and approved by the Administrator as elements of the Arizona SIP at 47 FR 15579 (4/12/82), specifically, the following rules:

7-1-1.2	Definitions
7-1-1.3.C	Air Pollution Prohibited
7-3-1.1	Visible Emissions; General
7-3-1.7.F	Fuel Burning Equipment
7-3-3.4	Organic Solvents; Volatile Organic Compounds

**GENERAL AIR QUALITY CONTROL PERMIT
FOR
SVEUs**

ATTACHMENT "D"

APPLICABLE REGULATIONS

REQUIREMENT SPECIFICALLY IDENTIFIED AS APPLICABLE

Compliance with the terms contained in this permit shall be deemed compliance with the following federally applicable requirements.

ARIZONA ADMINISTRATIVE CODE (A. A.C.) TITLE 18, CHAPTER 2

ARTICLE 3. PERMITS AND PERMITS REVISIONS

ARTICLE 7. EXISTING STATIONARY SOURCE PERFORMANCE STANDARD

R18-2-702 General Provisions
R18-2-730 Standards of Performance for Unclassified Sources

MARICOPA COUNTY RULES

RULE 300: VISIBLE EMISSIONS
300.300.301 Limitations - Opacity / General

RULE 320: ODORS AND GASEOUS AIR CONTAMINANTS
320.200.300 Standards

RULE 330: VOLATILE ORGANIC COMPOUNDS
330.300.304.1 Reduction Required
330.300.306 VOC Containment and Disposal

PIMA COUNTY CODE (P.C.C.), TITLE 17, CHAPTER 16

ARTICLE I: GENERAL PROVISIONS
17.16.010 Local Rules and Standards; applicability of More Than One Standard
17.16.030 Odor Limiting Standards

ARTICLE II: VISIBLE EMISSION STANDARDS
17.16.040 Standards and Applicability (Includes NESHAP)
17.16.050.D Visibility Limiting Standard

ARTICLE IV: NEW AND EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS
17.16.400.A Organic Solvents and Other Organic Materials

PINAL COUNTY CODE

The following provisions have been adopted by the Pinal County Board of Supervisors and approved by the Administrator as federally-enforceable SIP elements:

- 7-1-1.3-C Air Pollution Prohibited
- 7-3-1.1.C Visible Emissions - General
- 7-3-1.2 Fugitive Dust
- 7-3-3.1 Storage of Volatile Organic Compounds
- 7-3-3.4 Organic Solvents: Volatile Organic Compounds



